

**REMARKS/ARGUMENTS**

Claims 1 – 8 are currently pending in the application.

Claims 1 – 8 are provisionally rejected for nonstatutory obviousness-type double patenting over co-pending U.S. Application No. 10/589,025 and co-pending U.S. Application No. 10/589,013. Applicants thank Examiner Marcantoni for the telephone call on June 10, 2009, correcting a typographical error in the Office Action and confirming that the second double patenting rejection was over co-pending U.S. Application No. 10/589,013.

A terminal disclaimer to co-pending U.S. Application No. 10/589,025 and to co-pending U.S. Application No. 10/589,013 is filed herewith, thereby overcoming both of the provisional double patenting rejections to claims 1 – 8. Applicants request reconsideration and withdrawal of the provisional double patenting rejections to claims 1 – 8.

Claims 1 – 8 are rejected under 35 U.S.C. §102(e), or in the alternative, under 35 U.S.C. §103(a) over U.S. Patent No. 7,300,514 to Bonafous, et al. (hereinafter, “Bonafous”).

Independent claim 1 is a method claim for producing cementitious products by pouring a cementitious mortar into a foundry mould. The cementitious mortar comprises a fast-setting hydraulic binder, fluidifiers and/or superfluidifiers, setting regulators, aggregates, and water. The aggregates are made of two fractions with different grain sizes. The ratio of the characteristic grain diameters of the two fractions of aggregates are between 2.2 and 3.2.

Bonafous discloses mortar and concrete mixtures with  $\text{TiO}_2$  granules acting as a photocatalyst that give the material the ability to degrade pollutants (col. 3, lines 45 – 52) and a “self-cleaning” property that degrades substances that are deposited on the surface of the concrete or mortar (col. 3, lines 53 – 55; col. 4, lines 8 – 29). Bonafous discloses that a limitation in the prior art was that the amount of the photocatalyst that could be placed in the concrete or mortar mixture was limited, as too much of the  $\text{TiO}_2$  would interfere with the binder and cause finer-sized grains of the photocatalyst to detach from the material (col. 1, lines 50 – 60). Bonafous discloses an increase in photocatalytic activity by using  $\text{TiO}_2$  granules in several different granulometric classes (number of classes  $\geq 2$ ) that have a particle size between  $0.010\ \mu\text{m}$  to  $0.500\ \mu\text{m}$  in the mixture (col. 2, lines 3 – 17 and col. 12, lines 44 – 54).

However, the  $\text{TiO}_2$  photocatalytic particles in Bonafous are not the same as the aggregates recited in claim 1, as inferred in the Office Action. Claim 1 requires aggregates that are made up of two fractions with different grain sizes, and that have a ratio between 2.2 and 3.2 of characteristic grain diameters of the two fractions of aggregates. By contrast, all particle size issues in Bonafous are in relation to  $\text{TiO}_2$  as a photocatalyst, and *not* to aggregates.

Aggregates are inert materials. The present application discloses: “*From the mineralogical standpoint, the aggregates are those commonly used in the preparation of*

*concretes (e.g., sand) and are classified in the standard UNI 8520.*" (page 4, lines 33 – 34, to page 5, line 1). Bonafous does disclose compositions that include aggregates such as sand, such as in Table 12 ("*c/s is the weight ratio of cement to sand*"), but neither the particle size nor other physical parameters thereof is ever discussed in Bonafous.

Therefore, it is evident that – even for Bonafous – sand, representing aggregates, is totally distinguished from  $\text{TiO}_2$  as a photocatalyst.

In addition, claim 1 of Bonafous recites:

"...a photocatalytic mixture of photocatalytic titanium oxide particles of  $n$  granulometric classes having different specific surface areas,  $n$  being a number greater than or equal to 2, and of particle size comprised between about 0.010  $\mu\text{m}$  and 0.500  $\mu\text{m}$ ..."

Bonafous is in fact focused on the photocatalytic activity of  $\text{TiO}_2$  (see, for example, col. 2, lines 26 – 28, where "*...the catalytic effect is particularly improved when the mixture is constituted by two different granular classes...*"), and never on the fluidity of the compositions like the present application. There is a clear distinction between fluidity based on aggregates on the one hand and photocatalytic activity based on  $\text{TiO}_2$  on the other.

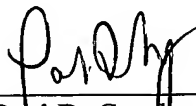
Therefore, for all of the above reasons, Bonafous fails to disclose, or even suggest, the elements in independent claim 1. Likewise, for at least these same reasons, Bonafous fails to disclose or suggest dependent claims 2 through 8.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the §102(e) and §103(a) rejections to claims 1 – 8 over Bonafous.

Applicants submit that the pending claims are allowable over the cited art, and respectfully request issuance of a Notice of Allowability for claims 1 – 8.

Respectfully submitted,

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Date

  
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